Complete Summary

GUIDELINE TITLE

Practice parameters for the evaluation and management of constipation.

BIBLIOGRAPHIC SOURCE(S)

Ternent CA, Bastawrous AL, Morin NA, Ellis CN, Hyman NH, Buie WD, Standards Practice Task Force of The American Society of Colon and Rectal Surgeons. Practice parameters for the evaluation and management of constipation. Dis Colon Rectum 2007 Dec;50(12):2013-22. [99 references] PubMed

GUIDELINE STATUS

This is the current release of the guideline.

COMPLETE SUMMARY CONTENT

SCOPE

DISEASE/CONDITION(S)

Constipation

GUIDELINE CATEGORY

Evaluation
Management
Treatment

CLINICAL SPECIALTY

Colon and Rectal Surgery
Family Practice
Gastroenterology
Internal Medicine

INTENDED USERS

Health Care Providers
Patients
Physicians

GUIDELINE OBJECTIVE(S)

To provide practice parameters for the evaluation and management of constipation

TARGET POPULATION

Patients with constipation

INTERVENTIONS AND PRACTICES CONSIDERED

Evaluation

1. Problem-specific history and physical examination, including digital rectal examination, anoscopy, proctosigmoidoscopy, and radiologic evaluation, as appropriate
2. Anorectal physiology and colon transit time investigations (balloon expulsion test, anorectal manometry, surface anal electromyography, defecography, radio-opaque markers to measure transit time)

Note: Routine blood tests, x-ray studies, and endoscopy are considered but currently not recommended.

Management/Treatment

1. Dietary modification, including a high-fiber diet and fluid supplementation, and increased physical activity
2. Polyethylene glycol, tegaserod, and lubiprostone
3. Psyllium supplements and lactulose
4. Milk of magnesia, senna, bisacodyl, and stool softeners
5. Total abdominal colectomy with ileorectal anastomosis (TAC-IRA) for carefully selected patients
6. Biofeedback therapy
7. Surgical repair of rectocele via transvaginal or transrectal approach
8. Surgical repairs of rectocele and rectal intussusception:
    - Transperineal or prosthetic mesh for rectocele repair
    - Transrectal stapled repair
    - Surgical repair for rectal intussusception as a last resort

MAJOR OUTCOMES CONSIDERED

- Reliability of diagnostic tests
- Satisfaction rates
- Time to response
- Duration of response
- Complication rates from oral or surgical treatment
- Changes in constipation symptoms including:
    - Stool frequency
    - Need for laxative
    - Degree of straining, stool consistency, and constipation severity

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Hand-searches of Published Literature (Primary Sources)
Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

An organized search of MEDLINE, PubMed, and the Cochrane Database of Collected Reviews was performed through October 2006. Key-word combinations included constipation, obstructed defecation, slow transit, surgery, rectocele, rectal intussusception, pelvic dyssynergia, anismus, paradoxical puborectalis, and related articles. Directed searches of the embedded references from the primary articles also were accomplished in selected circumstances.

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Weighting According to a Rating Scheme (Scheme Given)

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Levels of Evidence

I. Meta-analysis of multiple well-designed, controlled studies, randomized trials with low false-positive and low false-negative errors (high power)
II. At least one well-designed experimental study; randomized trials with high false-positive or high false-negative errors or both (low power)
III. Well-designed, quasi-experimental studies, such as nonrandomized, controlled, single-group, preoperative-postoperative comparison, cohort, time, or matched case-control series
IV. Well-designed, nonexperimental studies, such as comparative and correlational descriptive and case studies
V. Case reports and clinical examples

Adapted from Cook DJ, Guyatt GH, Laupacis A, Sackett DL. Rules of evidence and clinical recommendations on the use of antithrombotic agents. Chest 1992;102(4 Suppl):305S–11S. Sacker DL. Rules of evidence and clinical recommendations on the use of antithrombotic agents. Chest 1989;92(2 Suppl):2S–4S.

METHODS USED TO ANALYZE THE EVIDENCE

Review of Published Meta-Analyses
Systematic Review

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not stated

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Not stated

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Grades of Recommendations

A. Evidence of Type I or consistent findings from multiple studies of Type II, III, or IV
B. Evidence of Type II, III, or IV and generally consistent findings
C. Evidence of Type II, III, or IV but inconsistent findings
D. Little or no systematic empirical evidence

Adapted from Cook DJ, Guyatt GH, Laupacis A, Sackett DL. Rules of evidence and clinical recommendations on the use of antithrombotic agents. Chest 1992;102(4 Suppl):305S–11S. Sacker DL. Rules of evidence and clinical recommendations on the use of antithrombotic agents. Chest 1989;92(2 Suppl):2S–4S.

COST ANALYSIS

Published cost analyses were reviewed.

Clinical outcome analysis of a single-blind, randomized, multicenter trial of the treatment of idiopathic constipation during three months with polyethylene glucose (PEG) or lactulose showed that significantly more patients were successfully treated with PEG than lactulose (53 vs. 24 percent) with overall decreased total management costs.

METHOD OF GUIDELINE VALIDATION

Not stated

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

Not applicable

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

The levels of evidence (**I-V**) and the grades of recommendations (**A-D**) are defined at the end of the "Major Recommendations" field.

Evaluation of Constipation

1. A problem-specific history and physical examination should be performed in patients with constipation. **Level of Evidence: Class IV; Grade of Recommendation: B.**

   A history and physical examination may identify the presence of "alarm symptoms and signs," such as hematochezia, weight loss of more than 10 pounds, family history of colon cancer or inflammatory bowel disease, anemia, change in bowel habits or blood in the stool, which suggest the need for more aggressive endoscopic and/or radiologic evaluation. An adequate history may help to identify factors associated with constipation, such as immobility, psychiatric illness, contributing medications, endocrine etiologies, such as diabetes and hypothyroidism, previous pelvic surgery, or symptoms consistent with constipation-predominant irritable bowel syndrome (IBS). The history may suggest the presence of obstructed defecation if there is straining with bowel movements, incomplete evacuation, sensation of obstructed defecation, and the use of manual maneuvers to aid defecation. Nevertheless, symptoms alone may not reliably distinguish slow-transit constipation from anorectal dysfunction.

   A physical examination, including digital rectal examination, plus the selective use of anoscopy and proctosigmoidoscopy may identify the presence of fecal impaction, stricture, external or internal rectal prolapse, rectocele, paradoxical or nonrelaxing puborectalis activity, or a rectal mass.

2. The routine use of blood tests, x-ray studies, or endoscopy in patients with constipation without alarm symptoms is not indicated. **Level of Evidence: Class V; Grade of Recommendation: D.**

   Endoscopic evaluation of the colon is justified for patients who meet criteria for screening colonoscopy or those with alarm features. Furthermore, blood tests may be helpful to rule out hypercalcemia and/or hypothyroidism.

3. Anorectal physiology and colon transit time investigations may help to identify the underlying etiology and improve the outcome in patients with refractory constipation. **Level of Evidence: Class III; Grade of Recommendation: B.**

   The balloon expulsion test is a simple screening procedure to exclude pelvic floor dyssynergia (PFD), because symptoms alone may not be enough to distinguish between slow-transit constipation and outlet obstruction.

Anorectal manometry and surface anal electromyography may help to confirm pelvic floor dyssynergia or anismus. The presence of Hirschsprung's disease also can be suggested by anorectal manometry when the rectoanal inhibitory reflex is absent. Defecography is probably the most useful diagnostic technique for identifying internal rectal intussusception. In the setting of obstructed defecation, defecography may help to detect structural causes, such as intussusception, rectocele with retained stool, pelvic dyssynergia, and extent of rectal emptying.

The measurement of colon transit time using radio-opaque markers in patients with suspected slow-transit constipation is inexpensive, simple, and safe.

Nonoperative Management of Constipation

1. The initial management of symptomatic constipation is typically dietary modification, including a high-fiber diet and fluid supplementation. **Level of Evidence: Class II; Grade of Recommendation: B.**

   Conservative measures should be attempted before surgical intervention for constipation.

   Increased physical activity also seems to be helpful.

2. The use of polyethylene glycol, tegaserod, and lubiprostone for the management of chronic constipation is appropriate when dietary management is inadequate. **Level of Evidence: Class II; Grade of Recommendation: A.**
3. The use of psyllium supplements and lactulose for the treatment of chronic constipation is appropriate. **Level of Evidence: Class II; Grade of Recommendation: B.**
4. The use of common agents, such as milk of magnesia, senna, bisacodyl, and stool softeners, for chronic constipation is reasonable. **Level of Evidence: Class III; Grade of Recommendation: C.**

Indications for Surgery

Slow-Transit Constipation

1. Patients with refractory slow-transit constipation may benefit from total abdominal colectomy with ileorectal anastomosis (TAC-IRA). **Level of Evidence: Class III; Grade of Recommendation: B.**

   Patients should be counseled that the abdominal pain and bloating may persist postoperatively even after normalization of bowel frequency.

   TAC-IRA is recommended for carefully selected patients with severe documented colonic inertia and no evidence of severe or correctable pelvic floor dysfunction after nonoperative treatments have failed.

   An ileostomy is an alternative consideration in many of these patients.

2. Refractory slow-transit constipation associated with concomitant pelvic outlet obstruction may benefit from correction of the pelvic floor dysfunction and total abdominal colectomy with ileorectal anastomosis. **Level of Evidence: Class III; Grade of Recommendation: B.**

   A thorough preoperative workup may help to exclude patients with constipation-predominant irritable bowel syndrome or normal-transit constipation who will be unlikely to benefit from surgical intervention. Furthermore, patients with combined slow-transit constipation (STC) and outlet obstruction pathology may be offered individualized management.

   STC and associated pelvic floor dyssynergia can be treated with biofeedback and TAC-IRA, although this group has been shown to have a higher rate of recurrent defecatory problems and lower satisfaction rates after colectomy. STC with rectal intussusception and/or nonemptying rectocele/enterocele can be treated with TAC-IRA after repair of the anatomic cause of the outlet obstruction.

Management of Pelvic Floor Dyssynergia

1. Biofeedback therapy is appropriately recommended for treatment of symptomatic pelvic floor dyssynergia. **Level of Evidence: Class II; Grade of Recommendation: B.**

Surgical Management of Obstructed Defecation

Surgical Procedures

Indications for rectocele repair vary but generally include relief of the outlet obstruction symptoms with manual support of the vaginal wall or rectum and lack of rectocele emptying on defecography. Although controversial, some propose that rectoceles should be >4 cm in size to warrant repair.

1. Surgical repair of a rectocele may appropriately be performed via a transvaginal approach. **Level of Evidence: Class III; Grade of Recommendation: C.**
2. Surgical repair of a rectocele may appropriately be performed via a transrectal approach. **Level of Evidence: Class II; Grade of Recommendation: B.**
3. The role of transperineal techniques or the use of prosthetic mesh for rectocele repair is uncertain. **Level of Evidence: Class III; Grade of Recommendation: D.**
4. The role of transrectal stapled repair of rectoceles and rectal intussusception is uncertain. **Level of Evidence: Class III; Grade of Recommendation: D.**
5. Surgical repair for rectal intussusception associated with severe, intractable symptoms of obstructed defecation may be considered as a last resort. **Level of Evidence: Class III; Grade of Recommendation: C.**

Surgical management of internal intussusception may be considered for those with solitary rectal ulcer and possibly for associated intractable symptoms of outlet obstruction but only after conservative management has failed.

Definitions:

Levels of Evidence

I. Meta-analysis of multiple well-designed, controlled studies, randomized trials with low false-positive and low false-negative errors (high power)
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CLINICAL ALGORITHM(S)

None provided

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of supporting evidence is identified and graded for each recommendation (see "Major Recommendations" field).

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

- Appropriate individualized evaluation and management of constipation according to the nature, extent, and chronicity of the problem
- Increase in ease and frequency of bowel movements
- Reduction in use of laxatives and constipation-associated discomfort

POTENTIAL HARMS

- Long-term laxative usage can result in the development of cathartic colon.
- Although constipation is generally relieved after total abdominal colectomy with ileorectal anastomosis (TAC-IRA), studies have shown that, postoperatively, 41 percent of patients are affected with abdominal pain, 65 percent with bloating, 29 percent require assistance with bowel movements,

47 percent have some incontinence to gas or liquid stool, and 46 percent may be affected with diarrhea. Postoperative quality of life assessment after TAC-IRA showed significantly decreased scores compared with those of the general population.

- Postoperative dyspareunia will occur in 25 percent of patients who undergo transvaginal surgical repair of a rectocele and at least 10 percent may recur and require reoperation; 36 percent will report a problem with fecal incontinence.
- There are reports of postoperative bleeding, pain, incontinence, constipation, and rectovaginal fistula with the repair of rectoceles and internal intussusception using endoanal staplers.

CONTRAINDICATIONS

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The transrectal, anatomic, defect-specific rectocele repair involves the transverse closure of the rectocele by an interrupted plication of the muscularis anteriorly as in a Delorme procedure for rectal prolapse. This method results in a relative foreshortening of the anal canal with diminished internal sphincter function and resting anal pressures leading some to conclude that this procedure is contraindicated in patients with combined fecal incontinence and rectocele.

QUALIFYING STATEMENTS

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- These guidelines are inclusive, and not prescriptive. Their purpose is to provide information on which decisions can be made, rather than dictate a specific form of treatment.
- It should be recognized that these guidelines should not be deemed inclusive of all proper methods of care or exclusive of methods of care reasonably directed to obtaining the same results. The ultimate judgment regarding the propriety of any specific procedure must be made by the physician in light of all of the circumstances presented by the individual patient.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Getting Better
Living with Illness

IOM DOMAIN

Effectiveness

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

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ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

2007 Dec

GUIDELINE DEVELOPER(S)

American Society of Colon and Rectal Surgeons - Medical Specialty Society

SOURCE(S) OF FUNDING

American Society of Colon and Rectal Surgeons

GUIDELINE COMMITTEE

Standards Practice Task Force of The American Society of Colon and Rectal Surgeons

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

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FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Not stated

GUIDELINE STATUS

This is the current release of the guideline.

GUIDELINE AVAILABILITY

Electronic copies: Available in Portable Document Format (PDF) from the American Society of Colon and Rectal Surgeons Web site.

Print copies: Available from the ASCRS, 85 W. Algonquin Road, Suite 550, Arlington Heights, Illinois 60005.

AVAILABILITY OF COMPANION DOCUMENTS

None available

PATIENT RESOURCES

None available

NGC STATUS

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Date Modified: 11/3/2008